

# AMERICAN SOCIETY FOR TESTING MATERIALS



## ~ BULLETIN ~

ENGINEERS' CLUB BUILDING.

1315 SPRUCE ST.

PHILADELPHIA, PA.

NUMBER 20

MARCH 12, 1926

### Twenty-Ninth Annual Meeting, June 21 to 25

The Twenty-ninth Annual Meeting, as has been announced, will be held at the Chalfonte-Haddon Hall, Atlantic City, N. J., during the week of June 21. Monday will be devoted to committee meetings and the first session of the Annual Meeting will be held in the evening, or possibly in the afternoon, of Tuesday, June 22. The closing session will be held on Friday evening, June 25. To accommodate the many items on the program a number of simultaneous sessions will be necessary. At one of the sessions, possibly a special session, the first Marburg Lecture will be given. A provisional program for the meeting will be mailed to the members late in April with the next issue of the BULLETIN.

#### Hotel Rates and Reservations

Chalfonte-Haddon Hall is operated entirely on the American plan. The special rates that have been made available to the members and their guests are as follows:

Rooms with Private Bath	Per Day
Room occupied by one person	\$10.00
Room occupied by two persons	13.00 to \$18.00
Rooms with Running Water	
Room occupied by one person	\$6.00 to \$8.00
Room occupied by two persons	12.00 to 14.00

Those members who desire may reserve their accommodations now by addressing the hotel management. Most members, however, will probably wish to defer making their reservations until the program of the meeting has been distributed, at which time further details regarding reservations will be announced.

The Chalfonte and Haddon Hall each has its own dining room service, so that members who wish to take their meals together regularly should be sure to secure reservations in the same hotel. Members may at times and by arrangement in advance, take their meals in either dining room, but obviously this can be done only to a limited extent.

#### Reduced Railroad Rates

During the past two years, the certificate plan for obtaining reduced railroad rates has been in force. A minimum of 250 certificates is required before the reduced rate (1½ single fare for round trip) is effective. This number has been well exceeded at the past annual meetings so the certificate plan will again be followed this year. Further details will be given in the next issue of the BULLETIN.

#### Program

Details of the program are now being developed by Committee E-6 on Papers and Publications. The value and timeliness of the reports and papers will again be fully

up to the standard. Our committees have been quite active and most of them will have reports of value to present. The papers that have been accepted are all of extreme interest, including, so far as the metals are concerned, papers on fatigue, on corrosion, and on the testing of metals at high temperatures; and quite a few papers deal with the testing of concrete and road materials. Mention should be made of a Symposium on Rosin that is being arranged by our newly organized Committee D-17 on Naval Stores. The number of papers on instruments and methods of testing are more numerous, if anything, than heretofore.

#### Papers to be Reviewed for Dudley Medal

Authors of papers should bear in mind that the papers presented at the 1926 annual meeting will be reviewed during the succeeding year for presentation of the Dudley Medal at the 1927 annual meeting. The Executive Committee is preparing rules governing the award of the medal and the selection of the paper and will shortly take up the important matter of the design of the medal. The selection of the paper will be in the hands of a committee of three members appointed by the Executive Committee.

#### Preprints of Reports and Papers

The plan for distribution of preprints in effect during the past few years will be continued, as follows: The provisional program mailed to each member in April will be accompanied by a return blank upon which the member will be asked to indicate those reports and papers he wishes to receive. Preprints will be distributed only to those members who request them. Members attending the annual meeting will receive, as they register, a complete set of preprints.

#### Entertainment

No detailed announcement concerning the entertainment features can be made at this time but an entertainment committee has been appointed that is again under the able chairmanship of Mr. W. M. Corse, so the members are assured that the entertainment will be well taken care of. Details concerning the annual golf and tennis tournaments will be forwarded to the members in due course. Other entertainment will be provided for the members and their guests who are not interested in the tournaments.

At this annual meeting a registration fee of \$1 will be charged, which is intended to defray in part the entertainment and other expenses of the meeting. Accordingly there will be no subscription of funds among the members of the Society's committees as in the past few years.

# A.S.T.M. BULLETIN

Issued Quarterly by the  
AMERICAN SOCIETY FOR TESTING MATERIALS  
Engineers' Club Building, 1315 Spruce St., Philadelphia, Pa.

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Number 20

March 12, 1926

## Your Contribution to the Medal and Lecture Fund

You are no doubt now in receipt of a letter from the Committee on Medal and Lecture Fund, soliciting your subscription for the establishment of the Charles B. Dudley Medal and the Edgar Marburg Lecture. If this letter has not yet received your attention we would strongly urge that you send in your subscription as promptly as possible. We would also suggest, if you have not yet done so, that you read the folder on the Medal and Lecture that was sent out with the letter. This should be of especial interest to our newer members as presenting briefly something of the lives of the first President and first Secretary of the Society, with particular reference to their ideas on the future of the Society and the ideals for which it stands. In doing this, it might be considered as setting forth, in a measure, some of the traditions of the Society.

The reasons for the establishment of the Medal and Lecture have been stated in earlier issues of the BULLETIN, namely, that the Medal is intended as a means of stimulating research and of encouraging the presentation of papers giving the results of investigations that extend the knowledge of materials; and that the purpose of the Lecture is to have described before the Society by leaders in their respective professions, outstanding developments in the promotion of knowledge of engineering materials. The suggestion to establish the Medal and Lecture, by means of voluntary contributions from the members, was heartily approved at the annual meeting last year, so there should be no question of our ability to raise the required sum of \$7500. The thought is to have the fund represent a subscription from the membership at large rather than the contributions of a few, and it is with this in mind that the Fund Committee has suggested individual contributions of only three dollars. But the smallness of the sum should not deter the members from giving the matter their attention, for it is only through the cooperation of all that the plan in mind can be successful.

It is the aim to raise the entire fund before the annual meeting. We would, accordingly, heartily second the recommendation of the Fund Committee that you act now in sending in your subscription.

## Arthur N. Talbot First Marburg Lecturer

It is with considerable pleasure that we announce the selection of Arthur N. Talbot, Professor In Charge of Theoretical and Applied Mechanics, University of Illinois, as the first Edgar Marburg Lecturer. The Executive Committee having decided to hold the first Lecture at the 1926 annual meeting, appointed a committee of three, F. M. Farmer, G. K. Burgess and G. S. Webster, who selected the lecturer.

The selection of Professor Talbot is most appropriate. He has been for many years actively engaged in studies of engineering materials and has contributed much, both through the committees on which he has served and through the presentation of technical papers and discussions. He has been associated with many investigations of a research nature, possibly the most extensive being an investigation carried out by the Joint Committee on Stresses in Railroad Track under the auspices of the American Society of Civil Engineers and the American Railway Engineering Association and which is under his immediate supervision. He has carried out considerable investigational work in hydraulics and water and sewage treatment, on the properties of steel, brick, tile and concrete, and on reinforced concrete beams, columns, pipes, footings, frames and other structural members.

Professor Talbot was one of the first to see the possibilities of research in engineering materials and he early urged more extensive work along this line in our own Society. His annual address as President in 1914 dealt with "The Relation Between Research and the Activities of the Society." In this, he urged upon our committees the value of cooperative research work. He further suggested that the members encourage the making of appropriations for national, state and semi-public laboratories and that manufacturers and consumers support liberally research work on engineering materials. He expressed the thought that "possibly some day there may need to be a general research committee of the Society to coordinate work and to stimulate opportunities," a thought carried out almost to the letter ten years later in the organization of Committee E-9 on Correlation of Research.

Professor Talbot is an Honorary Member and a Past President of the Society. He served as Vice-President from 1912 to 1913 and as President from 1913 to 1914. He was elected to Honorary Membership in June 1923.

The subject of his lecture will be announced later.

## Society Membership

The members will be interested to know that the new members during 1925 totaled 513. During 1924 the number was 452 and during 1923, 532. The number of new members coming into the Society is a gratifying reflection of the recognition that the work of the Society is receiving in various quarters. The Society has so much of value to offer along technical lines that it can be of service to many, including scientific men, men interested in the technic of testing, and to industry in general. What is necessary is that we bring the work of the Society to the attention of those who would benefit by its activities and suggest that membership be acquired.

The efforts along these lines have been eminently successful during the past two months. During January of this year, 91 qualified for membership while the number of new members in February was 52. This is far ahead of the corresponding figures for any preceding year. May we urge again the importance of members bringing to the attention of interested engineers and others the functions of the Society and the valuable work that it is carrying on? In this way the present healthy growth will be well maintained.

## New Members to February 28, 1926

The following one hundred and fifty-three new members were elected from December 1, 1925, to February 28, 1926.

Adams, J. W.  
 Allen, R. J.  
 Alliance Brass & Bronze Co.  
 American Seating Co.  
 American Zinc Inst., Inc.  
 Amthor, F. E.  
 Austin Bridge Co.  
 Babcock Testing Laboratory  
 Barker, C. L.  
 Bate, D. M.  
 Baxter, H. A.  
 Beatty, J. L.  
 Bennett, Inc., F. S.  
 Bishop, H. E.  
 Blue, A. A.  
 Boardman, H. P.  
 Boston Public Works Dept.  
 Testing Laboratory  
 Boyden, H. C.  
 Budd Wheel Co.  
 Burgess Laboratories, C. F.  
 California Petroleum Corp.  
 Callahan, M. J.  
 Celluloid Co., The.  
 Cold Spring Granite Co., Inc.  
 Collier, I. L.  
 Colorado School of Mines Library.  
 Columbus Laboratories, The.  
 Conrow, A. D.  
 Continental Refining & Mfg. Co., The.  
 COTTON  
 Dahill, Edward, Jr.  
 Davis, W. R.  
 Decker, F. W.  
 Denyven, G. W.  
 Duquesne Steel Foundry Co.  
 Eagle Smelting & Refining Works, Ltd.  
 Electric Machinery Mfg. Co.  
 Ellis, E. H.  
 Elmira Laboratories.  
 Endacott, P. S.  
 Evans, D. R.  
 Federated Metals Corp.  
 Fliechhauer, Frank.  
 4-One Box Machine Makers.  
 Frank Foundries Corp.  
 Fuller, G. P.  
 Garbrecht, Charles.  
 General Petroleum Corp.  
 Gilby Wire Co.  
 Giles, I. K.  
 Giles, R. T.  
 Grasselli Chemical Co., The.  
 Guggenheim Bros.  
 Halifax, N. S., City of.  
 Hart, R. A.  
 Harvey, B. C.  
 Hedderich, H. F.  
 Higbee, H. B.  
 Hoover, T. J.  
 Hooper, F. W.  
 Horne, F. S.  
 Hulse, E. P.  
 Humble Oil & Refining Co.  
 Jessen, H. C.  
 Johnson McKim Johnson Co.  
 Jumper, F. J.  
 Keegan, A. W.  
 Kelker, De Leuw & Co.  
 Kelley, E. F.  
 Kern, W. F.  
 Kohout, J. F.  
 Kramer & Co., H.  
 Laird, W. R.  
 Lealie, E. H.  
 Li, Shu-tien.  
 Lincoln Electric Co.  
 Little, J. T.  
 Logan, G. H.

Louisiana State University.  
 Manker, F. W.  
 Marquand, Philip.  
 McLean, C. E.  
 McWilliams, J. R.  
 Mekeel, Van Cortright.  
 Moore, R. F.  
 Morrow Screw & Nut Co., Ltd.  
 Mullergren, A. L.  
 Murphy Varnish Co.  
 Northeastern University, Testing Laboratory.  
 Neal, C. S.  
 Newark Public Library.  
 Newhall, H. B.  
 N. D. State Highway Dept.  
 O'Neill, W. H.  
 Pacific Lime & Plaster Co.  
 Pascoe, C. F.  
 Pennsylvania Military College.  
 Peters, H. F.  
 Philadelphia Thermometer Co.  
 Phillips, W. M.  
 Phoenix Chemical Laboratory.  
 Pierce Petroleum Corp.  
 Pierre and Wright.  
 Pleister, H. W.  
 Proper, D. E.  
 Purchasing Agents Assn. of Tulsa.  
 Raschig, F. L.  
 Raybestos Co., The.  
 Redick, Frank.  
 Rees, O. T.  
 Rehfuss, O. C.  
 Richards, T. L., Jr.  
 Richter, R. M.  
 Root, F. B.  
 Roosman, K. V. B.  
 Royal Swedish Ordnance Dept.  
 Sadtler & Son., Inc., S. P.  
 Seelye, E. E.  
 Setzler, H. B.  
 Shell Co. of Calif.  
 Shreveport Chemical Co.  
 Small, A. R.  
 Southern Textile Assn.  
 Spaulding, A. W.  
 Stonega Coke & Coal Co.  
 Stuttgart Technische Hochschule, Hauptbücherei.  
 Superior Gas Engine Co.  
 Superior Oil Co.  
 Sutton, F. T.  
 Symington, R. R.  
 Syracuse University, College of Applied Science.  
 Teeple, P. McK.  
 Thomas, W. E.  
 United Oil Co.  
 University of Arkansas, College of Engineering.  
 University of Cincinnati Library.  
 University of Porto Rico, College of Engineering Library.  
 University of Louisville, Speed Scientific School.  
 Voorhees Rubber Mfg. Co.  
 Walker, Watson.  
 Ward, W. C.  
 Warman Steel Casting Co.  
 Warnock & Co., Ltd., Charles.  
 Wehr Steel Co.  
 Weitz' Sons, Charles.  
 Wheeler, R. C.  
 Whitney, H. Le R.  
 Wickes Boiler Co., The.  
 Wigen, M. L.  
 Wilson, L. W.  
 Worthington, H. D.  
 Wyoming Highway Dept.  
 Young, M. E.

## Addresses Wanted

Persons who know the present addresses of the members whose names and last known addresses are given below, are asked to advise the Secretary-Treasurer.

CROSBY, P. A., 435 Fourteenth St., Sacramento, Calif.  
 LEAKE, T. C., Parrish & Leake, 55 Broadway, New York City.

## List of Publications

**Proceedings, Volume 25 (1925).**—The Proceedings for 1925 in two parts: Part I, committee reports with discussions and new and revised tentative standards (963 pp.); Part II, technical papers with discussions (454 pp.). Prices to non-members: paper \$12.00, cloth \$13.00, half-leather \$16.00. To members for extra copies: \$7.00, \$8.00 and \$11.00, respectively.

**Book of A.S.T.M. Standards.**—Issued triennially. The 1924 edition (1230 pp.) and the 1925 Supplement (117 pp.) contain the 254 standards adopted by the Society. Prices to non-members: cloth \$12.00, half-leather \$13.50. To members for extra copies: \$8.50 and \$10.00, respectively.

**Supplement to Book of Standards.**—The 36 standards adopted in 1925 forming the first supplement to the 1924 Book of A.S.T.M. Standards are issued in a pamphlet of 117 pp. Price to non-members: \$1.50. To members for extra copies, \$1.00.

**Book of A.S.T.M. Tentative Standards.**—The 1925 edition (876 pp.) contains 193 tentative standards issued by the Society. Prices to non-members: paper \$7.00, cloth \$8.00. To members: \$4.50 and \$5.50, respectively.

**Separate Standards and Tentative Standards.**—Separate copies of all standards and tentative standards are available. The price is 25 cents for a single copy and in lots up to 50. Larger quantities are furnished at lower prices.

**Complete Sets of Proceedings** from 1902 to 1925, inclusive (with the exception of Vols. I and III). Special prices are made to members for extra copies and for complete sets. Binding in paper, cloth or half-leather.

**Index to Proceedings**, containing both an author and subject index of committee reports and technical papers, including discussions. Index to Vols. I-XII, 1898-1912 (158 pp.). Prices to non-members: \$1.50 in cloth, \$2.00 in half-leather; to members: \$1.00 in cloth, \$1.50 in half-leather. Index to Vols. XIII-XX, 1913-1920 (189 pp.). Prices to non-members: \$2.50 in cloth, \$3.50 in half-leather; to members: \$1.75 in cloth, \$2.75 in half-leather.

## Special Reprints from Proceedings

**Symposium on Effect of Temperature upon the Properties of Metals**: Four papers summarizing existing knowledge presented at Cleveland meeting of A.S.T.M. and A.S.M.E., May, 1924, complete with discussion and valuable bibliography (184 pp., paper cover). Price, \$1.50.

**Symposium on Corrosion-Resistant, Heat-Resistant and Electrical-Resistance Alloys**: Thirteen papers on all phases of the subject presented at A.S.T.M. meeting at Atlantic City, June, 1924, containing three large inset tables of data on ninety of these alloys, complete with discussion (265 pp., paper cover). Price, \$2.00.

**1924 Report of Joint Committee on Standard Specifications for Concrete and Reinforced Concrete**, including complete specifications with 14 A.S.T.M. specifications and methods of test appended (152 pp., paper cover). Price to non-members, \$1.50. To members, \$1.00.

**Manual of Cement Testing**: This Manual (17 pp.), prepared by Committee C-1 on Cement and reported to the Society at the 1925 Annual Meeting, supplements the Standard Specifications and Tests for Portland Cement (C 9-21). Reprints of the Manual are available at 25 cents.

**Special Pamphlet on Textile Materials**, containing six standards and eight tentative standards, as well as data relating thereto and information concerning the work of Committee D-13 on Textile Materials (70 pp.). Second edition. Price, \$1.00.

**1925 Report of Committee D-2 on Petroleum Products and Lubricants**, (66 pp.). Price, \$1.00.

**Reports of Committee A-5 on Corrosion of Iron and Steel**, for the years 1923, 1924 and 1925. Separate reprints. Price, 50 cents each.

**A List of Alloys** (30 pp.) prepared by William Campbell for Committee B-2 on Non-Ferrous Metals and Alloys, giving the compositions of some 1550 alloys, most of which are non-ferrous. Price, \$1.00.

Inquiries and orders should be directed to:

AMERICAN SOCIETY FOR TESTING MATERIALS

1315 Spruce Street, Philadelphia

## Shall We Reprint Volumes I and III of the Proceedings?

Volumes I and III of the Proceedings of the Society have been out of print for some time, thus making it impossible to furnish complete sets of the Proceedings. There have been some requests that we make these two volumes available so that libraries and others interested in having their sets complete may be able to secure them. This is, of course, only possible by again having these two volumes put in type, which the Society is prepared to do at cost.

Volume I is a compilation of 28 Bulletins, issued from the time of the organization of the American Section of the International Association for Testing Materials in 1898 until the incorporation of the Society in 1902. They cover the actions taken at the annual meetings and include the original drafts of our first steel specifications. Volume III contains the proceedings of the sixth annual meeting, held at Delaware Water Gap, Pa. It comprises a volume of 490 pages and contains the various committee reports and technical papers presented at the meeting. If 500 copies of Volumes I and III are ordered, the cost to members per volume, in cloth binding, will be approximately \$4 and \$6, respectively. If 1000 copies are ordered, the cost per volume will be \$2.50 and \$3.50.

If you are interested in securing copies of these volumes, kindly fill in the return card enclosed with this BULLETIN and forward it to the Secretary-Treasurer.

## Group Meeting in Providence

The spring group meeting of the committees of the Society will be held in Providence over the dates March 17, 18 and 19, with the following committees participating:

A-1 on Steel;	D-11 on Rubber Products;
A-2 on Wrought Iron;	D-13 on Textile Materials;
A-5 on Corrosion of Iron and Steel;	D-14 on Screen Wire Cloth; Section, Committee E-1, on Tests of Thin Sheet Metals;
B-1 on Copper Wire;	Joint Research Committee on Effect of Temperature on the Properties of Metals;
B-2 on Non-Ferrous Metals and Alloys;	Joint Committee on Effect of Phosphorus and Sulfur in Steel;
B-3 on Corrosion of Non-Ferrous Metals and Alloys;	Committee, Joint Committee on Phosphorus and Sulfur, on Tests.
D-1 on Preservative Coatings for Structural Materials;	
D-9 on Electrical Insulating Materials;	

The meetings will be held at the Providence Biltmore, where arrangements have been made for establishing our headquarters and where meeting-room facilities have been placed at our disposal. The Providence Engineering Society has extended a cordial invitation to the members to make use of its quarters while in Providence. The Chamber of Commerce has also offered its services in handling details and in general insuring a successful meeting.

Arrangements are being made for inspection trips and other features by a local entertainment committee, consisting of the following:

D. C. Scott, *Chairman*  
L. D. Burlingame  
S. E. Jackson

W. H. Kennerson  
A. J. Loepsinger  
W. W. Rice

Since there are many plants of especial interest in the Providence district, the inspection trips should be particularly inviting.

A joint luncheon with the Chamber of Commerce will be held on March 18, and dinners will be arranged for Thursday and Friday evening.

## Schedule of Committee Meetings

DATE	COMMITTEE	PLACE
March 12-13	C-11 on Gypsum Products.....	Washington
March 17-19	A-1 on Steel A-2 on Wrought Iron A-5 on Corrosion of Iron and Steel B-1 on Copper Wire B-2 on Non-Ferrous Metals and Alloys B-3 on Corrosion of Non-Ferrous Metals and Alloys D-1 on Preservative Coatings for Structural Materials D-9 on Electrical Insulating Materials D-11 on Rubber Products D-13 on Textile Materials D-14 on Screen Wire Cloth Section, Committee E-1, on Tests of Thin Sheet Metals.	Providence
March 30	D-8 on Bituminous Waterproofing and Roofing Materials...	Philadelphia
March 31	D-4 on Road and Paving Materials.	Philadelphia
April 1-3	D-2 on Petroleum Products and Lubricants.....	Baltimore
April 5-6	B-4 on Metallic Materials for Electrical Heating.....	Washington
April 22	A-7 on Malleable Castings.....	Buffalo
April	D-10 on Shipping Containers.....	Chicago

## Recent Meetings of Committees

The technical committees of the Society have been extremely active during the past few months and a number of committee meetings have been held since the first of the year.

**Committee A-1 on Steel** held a series of sub-committee meetings in Philadelphia, on January 14 and 15, after which a meeting of the main committee was held to review the reports of the sub-committees. New specifications were presented for Marine Boiler Steel Plates.

The newly organized **Committee B-4 on Metallic Materials for Electrical Heating** met at Washington, D. C., on January 25 and 26, at which a number of plans were discussed for conducting cooperative tests on heating elements. These include various methods for conducting life tests, physical and electrical tests, and methods of chemical analysis.

Very definite progress was reported by a number of the sub-committees of **Committee C-9 on Concrete and Concrete Aggregates** at a meeting held in New York City on January 23, including a study of methods of loading in flexural tests of concrete beams, and a study of the tensile strength of concrete in cylindrical specimens.

**Committee D-9 on Electrical Insulating Materials**, at a meeting held in New York City on January 22, gave consideration to a number of contemplated revisions in the methods of testing covering various insulated materials.

**Committee E-4 on Metallography**, at a meeting held on February 15 in New York City, gave consideration to a recommended practice in the radiography of metals and to methods for the identification of and etching reagents for carbides, etc. in alloy steels.

In addition to the meetings mentioned, a meeting was held by **Committee D-2 on Petroleum Products and Lubricants** in Los Angeles, on January 18, and by **Committee D-4 on Road and Paving Materials** in New York City on January 22.

## Drain Tile Specifications American Standard

The Society's Standard Specifications for Drain Tile (C 4-24), under the jurisdiction of our Committee C-6 on Drain Tile, have been approved as "American Standard" by the American Engineering Standards Committee, through its usual sectional committee procedure. The date of approval as American Standard is December 14, 1925.

APRIL, 1926

AMERICAN SOCIETY FOR TESTING MATERIALS



• **BULLETIN**

ISSUED

QUARTERLY



*Twenty-Ninth Annual  
Meeting*

Chalfonte-Haddon Hall

ATLANTIC CITY, N. J.

JUNE 21 TO JUNE 25

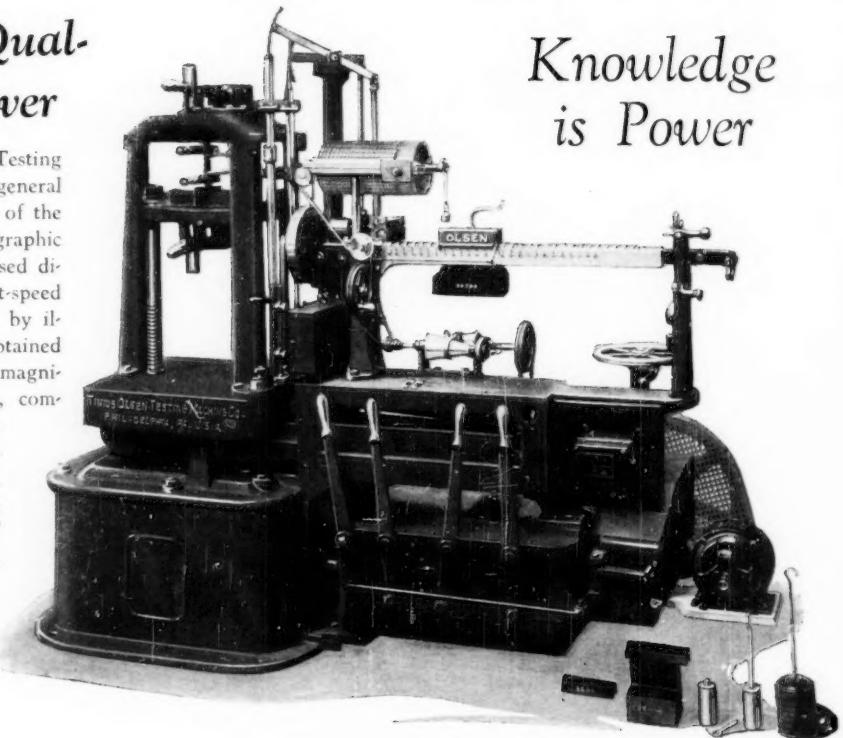
1926

ENGINEERS' CLUB BUILDING, 1315 SPRUCE ST. PHILADELPHIA, PA.

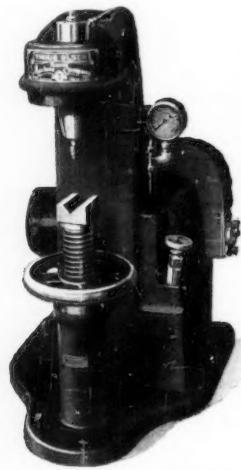
# Olsen Testing Machines

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Testing Machines for tension, compression, transverse, shear, impact, alternate stress, torsion, endurance, abrasion and frictional qualities. SPECIAL TESTING MACHINES for cement, concrete and road materials, wire, chain, springs, oils, greases, bearing metals, insulating materials, rubber, paper and fabric.

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